Claims

What is claimed is:

1. A method for implementing coexistence and cooperation between system firmware and debug code in a test system comprising the steps of:

providing a service processor coupled to a machine under test for sending system firmware test functions to said machine under test and receiving test data from said machine under test;

providing a host computer coupled to said service processor for sending bring-up tool debug test functions to said machine under test and receiving test data from said machine under test;

starting said system firmware test functions without user intervention on initial power-on routine of the machine under test;

receiving a user request with said host computer and notifying said service processor; and

starting said bring-up tool debug test functions responsive to said user request.

2. A method for implementing coexistence and cooperation between system firmware and debug code in a test system as recited in claim 1 wherein the step of providing said service processor coupled to a machine under test for sending system firmware test functions to said machine under test and receiving test data from said machine under test includes the step of storing system firmware in said service processor for sending said system firmware test functions to said machine under test and receiving said test data from said machine under test by said service processor.

3. A method for implementing coexistence and cooperation between system firmware and debug code in a test system as recited in claim 1 wherein the step of providing said host computer coupled to said service processor for sending bring-up tool debug test functions to said machine under test and receiving test data from said machine under test includes the step of storing a bring-up tool in said host computer for sending bring-up tool debug test functions to said machine under test and receiving test data from said machine under test.

4. A method for implementing coexistence and cooperation between system firmware and debug code in a test system as recited in claim 1 includes the steps of identifying a failure in said machine under test with said system firmware test functions, stopping said system firmware test functions, and notifying said host computer.

5. A method for implementing coexistence and cooperation between system firmware and debug code in a test system as recited in claim 4 includes the step of receiving a user request and starting said bring-up tool debug test functions responsive to said user request.

6. A method for implementing coexistence and cooperation between system firmware and debug code in a test system as recited in claim 5 includes the step of completing said bring-up tool debug test functions and starting said system firmware test functions without user intervention.

7. A method for implementing coexistence and cooperation between system firmware and debug code in a test system as recited in claim 1 wherein the steps of providing said service processor coupled to said machine under test for sending system firmware test functions to said machine under test and receiving test data from said machine under test; and providing said host computer coupled to said service processor for sending bring-up tool debug test functions to said machine under test and receiving test data from said machine under test includes the step of providing said service processor with a scan controller coupled to said machine under test and said system firmware test functions and said bring-up tool debug test functions controlling access to the scan controller.

8. A method for implementing coexistence and cooperation between system firmware and debug code in a test system as recited in claim 7 includes the step of storing system firmware in said service processor for controlling said scan controller for sending said system firmware test functions to said machine under test and receiving said test data from said machine under test by said service processor.

9. A method for implementing coexistence and cooperation between system firmware and debug code in a test system as recited in claim 8 includes the step of storing a bring-up tool in said host computer for controlling said scan controller for sending bring-up tool debug test functions to said machine under test and receiving test data from said machine under test.

10. A method for implementing coexistence and cooperation between system firmware and debug code in a test system as recited in claim 1 includes the step of completing said bring-up tool debug test functions.

11. A method for implementing coexistence and cooperation between system firmware and debug code in a test system as recited in claim 10 includes the step of starting said system firmware test functions without user intervention.

12. Apparatus for implementing coexistence and cooperation between system firmware and debug code in a test system comprising:

a service processor coupled to a machine under test for sending system firmware test functions to said machine under test and receiving test data from said machine under test;

a host computer coupled to said service processor for sending bring-up tool debug test functions to said machine under test and receiving test data from said machine under test;

said service processor including a scan controller for transferring said system firmware test functions and said bring-up tool debug test functions to said machine under test and receiving said test data from said machine under test; and

said system firmware test functions and said bring-up tool debug test functions controlling access to said scan controller.

13. Apparatus for implementing coexistence and cooperation between system firmware and debug code in a test system as recited in claim 12 wherein said scan controller is coupled to said machine under test by a JTAG bus.

14. Apparatus for implementing coexistence and cooperation between system firmware and debug code in a test system as recited in claim 12 wherein said host computer coupled to said service processor includes system firmware for providing a graphical user interface.

15. Apparatus for implementing coexistence and cooperation between system firmware and debug code in a test system as recited in claim 12 wherein said host computer is responsive to a user request for sending bring-up tool debug test functions to said machine under test and receiving test data from said machine under test.

16. Apparatus for implementing coexistence and cooperation between system firmware and debug code in a test system as recited in claim 12 wherein said service processor is responsive to an initial power-on routine of the machine under test for sending system firmware test functions to said machine under test and receiving test data from said machine under test without user intervention.

17. Apparatus for implementing coexistence and cooperation between system firmware and debug code in a test system as recited in claim 12 wherein said service processor is responsive to said bring-up tool debug test functions completing for sending system firmware test functions to said machine under test and receiving test data from said machine under test without user intervention.

18. A computer program product for implementing coexistence and cooperation between system firmware and debug code in a test system including a service processor coupled to a machine under test and coupled to a host computer, said computer program product including a plurality of computer executable instructions stored on a computer readable medium, wherein said instructions, when executed by said service processor, cause the service processor to perform the steps of:

starting system firmware test functions without user intervention on initial power-on routine of the machine under test;

sending system firmware test functions to said machine under test and receiving test data from said machine under test;

receiving a user request with said host computer and notifying said service processor; and

starting said bring-up tool debug test functions responsive to said user request; and

sending bring-up tool debug test functions to said machine under test and receiving test data from said machine under test.